

PIGMENTS

For Every Purpose



ROBINSON, WAGNER CO., INC.
21 WEST STREET, NEW YORK, N. Y.



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R568

Jack Buisson



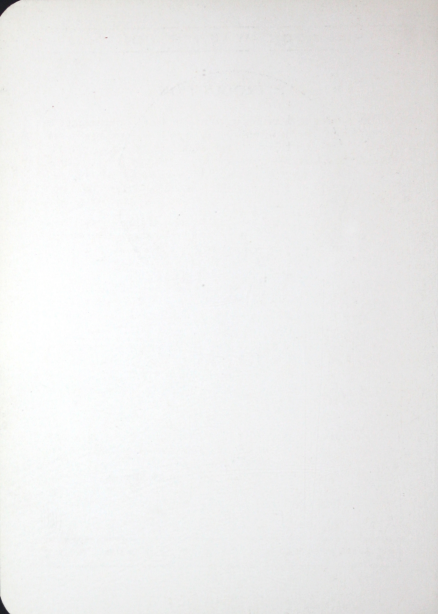
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(c. 1920's)



INTRODUCTION

This catalogue describes in complete detail, some eighty or more different pigments and colors which we can supply regularly. Some of the pigments listed, are new developments, while others have been well known standards for more than fifteen years. They should be of keen interest to the progressive manufacturer who is on the alert for better and more economical colors.

The recent advent of Liquid Measure, has given paint and color grinders an ideal opportunity to improve their standards. During the past few years, there has developed an inconsistent demand especially among users of Colors-in-Oil, for brighter, clearer shades and decidedly stronger and clearer tints. As a result, the muddy and relatively weak pigments of the past are being rapidly abandoned, for richer colors with greater tinctorial strength. Liquid colors are becoming increasingly popular.

The importance of fineness in texture is now thoroughly appreciated, and the fact that the presence of an appreciable percentage of coarse particles in a pigment will greatly retard the speed of production of paints and colors made therefrom, and increase the grinding cost to a very material extent, thoroughly understood.

In the past few years a revolutionary change has been taking place in the art of finishing metal and wood surfaces due to the rapid development of lacquers and four-hour enamels. Here the requirements of high gloss, quick drying, low pigmentation, and minimum settling, can only be met with pigments of maximum opacity, relatively low oil absorption, and extreme fineness of texture.

The incorporation of pigments in concrete to yield colored products is now a well-established practice, and is becoming more common as new uses are found for concrete products, and new effects are required. The experience already gained in their application has shown Ferric Oxides to be the best materials for red shades, Ferric Hydrates for yellows and browns, and Magnetic Iron Oxides for blacks. Pigments of the highest tinctorial strength are recommended so that a relatively small amount of color will be required to produce the desired effect, without reducing the bonding properties of the cement.

This same principle holds true in the manufacture of building paper, counter-board, fibre-board, folder-board, and other colored specialties where the use of an excessive amount of pigment will impair the tensile strength seriously.

With these new requirements in mind, the most exacting care has been taken in the development and selection of our different color standards, so that there is now available a fairly wide range of colors for almost every purpose, at an economical price.

It is hoped that the technical data and suggestions contained herein will prove helpful to the purchasing department and perhaps be of some assistance to the man in the laboratory. We suggest that inquiries be sent to us on those pigments of special interest to you. Large samples are available of any, or all of our colors, and will be gladly submitted on request.

I N D E X

BLACKS:

Lake	9
Lamp	10-11
Oxide	8

BROWNS:

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Sap	13
Umber	14-15
Van Dyke	12
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REDS:

Indian	24-25
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Selenium	26
Sienna, Burnt	30
Vermilion	16

WHITES:

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Barytes	41
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Zinc Sulphide	39

YELLOWS:

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DELIVERIES

Truck deliveries direct to the Buyer's factory door can be arranged to many points within forty-eight hours. For manufacturers who require a number of assorted colors, these can be consolidated into a carload shipment and a saving in freight thus affected.

WAREHOUSE STOCKS

Warehouse stocks are carried at various local points, including New York, Chicago, Detroit, San Francisco, and Seattle.

SALES REPRESENTATIVES

The following firms are our Sales Representatives in the localities indicated below, and will be pleased to submit additional information and render every possible service to our customers in the use of these pigments. We suggest that you communicate with them:—

BUFFALO

James O. Meyers 34 Wardman Road, Kenmore
Phone: Riverside 3475

CLEVELAND

F. W. Schill Co. Rockefeller Bldg.
Phone: Cherry 7661

DETROIT

John W. Schumacher 235 Woodland Ave.
Phone: TOWNSEND 7-6887

PITTSBURGH

J. C. Ackerman 420 Oliver Bldg.
Phone: At. 7434

SAN FRANCISCO

Otto F. Wisher Co. 140 Spear Street
Phone: Douglas 6188-89

SEATTLE

Corl Chemical Co. 1990 Railroad Ave.
Phone: Main 8137

LOS ANGELES

A. J. Lynch 2424-30 Enterprise Street

HI-TEST BLACK OXIDE

Typical Analysis:

Ferroso-Ferric Oxide	97/98%
Alumina and Calcium Sulphates	Balance
Specific Gravity	4.90
1 lb. bulks gallons .....	.0245
Oil Absorption	21.-
Residue on 325 Mesh Screen	1.0%

This is an extremely soft-textured pigment with an unusually strong, clear blue tint. Formerly its principal use was in composition products of various kinds where its high specific gravity was a very useful factor as compared to the lighter blacks pigments which have a tendency to "float" and streak.

Recently paint manufacturers have come to a better understanding of the merits of this pigment for structural steel paints, where it imparts great durability to the finish. Beautiful bluish-gray tints may be obtained with it, and because of its basic qualities Hi-Test Black Iron Oxide may be used successfully as a rust preventative in priming coats for metals.

Packed in 500 lb. barrels.

DIAMOND BLACK PASTES

DIAMOND BLACK LAKE, one of the deepest, richest black pigments available, could only be had heretofore, in dry, powdered form. We now offer this pigment in two standard paste forms, as follows:—

DIAMOND BLACK PASTE No. 1 consisting of:—

- 50% Diamond Black Lake
- 25% Dibutyl Phthalate
- 25% Clear Blown Castor Oil

DIAMOND BLACK PASTE No. 2, consisting of:—

- 50% Diamond Black Lake
- 50% Clear Blown Castor Oil

These two pastes are ideal for Black Lacquer Enamels. Greater dispersion has been obtained by displacing the water in the wet pigment simultaneously while combining the pigment with the Castor Oil vehicle. Thus, grinding and drying have been avoided, so that richness of color and intensity of shade have been preserved, and settling eliminated.

BLUETONE LAMPBLACKS

For more than fifteen years we have specialized in Bluetone Lampblacks, made by the Wegelin process. These Lampblacks are noted for their pure blue tints and great strength. Recently, because of the low cost of Carbon Black, the presence of Lampblacks, containing considerable quantities of carbon Black have been noticed on the market. While the addition of carbon Black to Lampblack may increase the strength, it destroys the pure blue tints characteristic of all pure Lampblacks. The Lampblacks listed below are pure and free from any mixture whatsoever.

No. 400 BLUETONE LAMPBLACK

Typical Analysis:

Moisture .....	.40%
Benzine Ex. ....	.09%
Ash .....	.01%
Specific Gravity	1.78
1 lb. bulks gallons .....	.067
Oil Absorption	86.-

No. 400 Bluetone Lampblack is an ideal pigment for rubber finishes, where it imparts a deep matte black effect. It is also popular for tinting, especially "Battleship and Lead Grays," because it produces beautiful blue-gray tones free from streaky, smudgy effects. Its blue undertone also makes it useful, in combination with Raw Sienna, in producing permanent olive green finishes.

No. 400 Bluetone Lampblack meets the Navy Department Specifications 52-L-7b dated July 1st, 1925.

This pigment is also suitable for Flat Black Primers and Undercoats, Black Japan finishes, Iron Fillers, etc., and grinds smoothly straight in oil without becoming ropy.

No. 406 BLUETONE LAMPBLACK

This grade is similar in analysis and characteristics to No. 400, but its tinting strength is about 25% greater. The comparative low oil absorption, considering its extra strength, is a feature of this grade. These qualities make No. 406 a very desirable standard for oil colors.

No. 412 BLUETONE LAMPBLACK

No. 412 is a more intense and much stronger Lampblack than No. 406, although it possesses the same desirable features of relatively low oil absorption, great staining power, and pure blue tint. Where an extra fine quality, strong tinting Lampblack is required, No. 412 should be considered.

These Lampblacks are packed in 10 lb. bags, two in a carton.

STAR BRAND VAN DYKE BROWN

Typical Analysis:

Organic Matter	65%
Moisture	25%
Ferric Oxide	2%
Calcium and Alumina	6%
Specific Gravity	1.66
1 lb. bulks gallons .....	.073
Oil Absorption	33.—
Residue on 325 Mesh Screen	1.0%

This pigment has a very deep, transparent, velvet-like, rich brown color, with excellent tinting strength, and is admirably suitable for Walnut Stains, graining compounds and glazes. It grinds easily and smoothly without becoming "rubbery" or stringy.

The preparations of this pigment is carefully standardized so that an absolutely uniform color is assured.

HI-TEST BROWN OXIDE

Typical Analysis:

Ferric Oxide	96/97%
Specific Gravity	4.20
1 lb. bulk gallons .....	.028
Oil Absorption	25.—
Residue on 325 Mesh Screen .....	.79%

Hi-Test Brown Oxide is a synthetic pigment, and stronger tinctorially than the mineral browns. Because of its extremely soft, smooth texture it is admirably suited for pigmentsing high gloss brown lacquers and enamels, and other purposes where a brown pigment of clear tone and great strength is required. This is available in three shades: light, medium, and dark and they are packed in 500 lb. casks.

"STAR BRAND" SAP BROWNS

Star Brand Sap Browns are completely and quickly soluble in water, and entirely free of insoluble matter. This is important because the presence of even a small amount of insoluble material, specks the paper badly and ruins its good appearance.

Because of their ready and complete solubility, our Sap Browns may be added direct to the beaters, without any preliminary preparation. Tintorially they are strong, and will produce uniform, rich brown tones absolutely fast to light.

They are available in three forms—crystals, flakes, and powder, the latter being most popular among paper makers because it dissolves almost instantly.

WALNUT CRYSTALS

These crystals are also soluble in water, and are used principally for producing Walnut Water Stains and similar wood finishes. They are also available in finely powdered form, soluble completely and almost instantly.

Packed in 500 lb. barrels.

TURKEY UMBERS

Umber, in its crude native state, is found in many localities, but the finest qualities are those mined in the Island of Cyprus, off the Turkish coast. These Umbers possess a richness and depth of color, and staining power, unequalled by those found in any other part of the world, and for that reason, are by far the most popular and widely used types.

Our Umbers, both raw and burnt, are carefully graded and sorted from select Cyprus ores, and blended to standard shades, so that uniformity of color and tint is always maintained. They are subjected to very careful grinding, to insure softness of texture without impairing richness of color or tint. Upon completion of the grinding process, the Umbers are then bolted through a very fine, silk mesh to eliminate all coarse particles. In this manner, Umbers, warmer in tone, deeper and richer in color, and with greater translucency are obtained.

No. 1112 RAW UMBER*Typical Analysis:*

Ferric Oxide	54%
Silicates	25%
Alumina	5%
Manganese Oxide	12%
Loss on Ignition	Balance
Specific Gravity	3.48
1 lb. bulks gallons .....	.034
Oil Absorption	33.—
Residue on 325 Mesh Screen .....	.95%

No. 1112 Raw Umber is a standard medium shade, and is suitable for all purposes where a strong, good quality Raw Umber is required. Our Umbers are ground impalpably fine and consequently are very soft and smooth in texture.

BURNT UMBERS

Ferric Oxide	52/55%
Silicates	21%
Alumina	6%
Manganese Oxide	13%
Loss on Ignition	Balance
Specific Gravity	3.5
1 lb. bulks gallons .....	.034
Oil Absorption	27.6
Residue on 325 Mesh Screen .....	.65%

No. 134 BURNT UMBER

Has a beautiful deep seal brown color with a clean warm brown undertone, particularly suitable for tinting paper and ceramic tiles.

No. 152 BURNT UMBER

Is a medium brown shade, similar to but lighter than our No. 134 and a little redder in tone.

No. 1212 BURNT UMBER

Has a rich reddish tone and is a very popular shade for grinding in oil, because of its strong tinting quality and very warm tint.

WHT BURNT UMBER

Typical Analysis:

Ferric Oxide	57%
Manganese Oxide	16%
Silica	15%
Lime	5%
Loss on Ignition	Balance
Residue on 325 Mesh Screen .....	.79%

This type is extremely deep in shade and the darkest type we have. It is especially suitable for Ceramic Tiles because of its low porosity, which gives a much harder, tighter mix.

Our Umbers are available in 500 lb. barrels or 50 lb. bags.

PURE ENGLISH VERMILLIONS

Vermillion has been used for centuries and is a red with unsurpassed opacity. Being made from quicksilver, it possesses a characteristic heaviness. Nevertheless, some printing-ink makers have been able to use it successfully in Litho-Inks, although its most popular use is in inks for tin printing. It also serves a very useful purpose in the manufacture of dental rubber gums, and in artists colors.

We can supply four standard shades:—

- | | |
|------------|--------------------------|
| Extra pale | —a bright orange yellow |
| Pale | —a rich orange |
| Medium | —a fiery scarlet |
| Deep | —a very beautiful maroon |

We are also prepared to match any special shade required where quantities warrant it.

An important feature of all of our Vermillions, is that they are not re-active to copper and therefore will not cause discoloration.

Packed in 50 and 100 lb. kegs.

RED OXIDES

Although there are a great number of red pigments, varying widely in tone, tint and other characteristics, used in the paint industry, the Red Oxides of Iron have the widest application by far. Tests made with some of these Iron Oxides used as paints for the protection of iron and steel, indicate that they are superior to Red Lead or Graphite. Consequently one of the most important uses of Red Oxides is in the manufacture of so-called Oxide Primers. These are usually formulated with Red Oxide for pigment, and a varnish prepared from Tung or Linseed Oil and then thinned with Petroleum spirits and dryers. The experience in automobile finishing thus far has shown that the best results are obtained by using such a primer on the metal and then building up the finish upon this as a base with surfacers and enamels.

Red Oxides also serve as tinting medium in Rubber, Cement, Paper and composition products where permanence, staining power, and fastness to light are essential.

We offer twelve different and interesting natural and synthetic Red Oxides with a fairly wide range of color, tint, and strength, to suit practically every important requirement, as indicated below:—

No. 990 PURE RED OXIDE

Typical Analysis:

Ferric Oxide	98/99%
Manganese Oxide .....	.03%
Water Soluble Salts	None
Residue on 325 Mesh Screen .....	.58%

No. 990 as its analysis indicates, is a pure pigment, specially suitable because of its great strength, for colored rubber products, artificial red stone, Spanish roofing and cement tiles, ceramics, molded compositions, and lacquers. Its extremely fine texture and relatively high bulk make more complete color dispersion possible. It has a bright yellowish mass color with a strong salmon tint.

No. 999 RED OXIDE*Typical Analysis:*

Ferric Oxide	85/88%
Silica	7/8%
Calcium and Alumina	5/6%
Specific Gravity	4.56
Oil Absorption	14.-
1 lb. bulks gallons .....	.02633
Residue on 325 Mesh Screen .....	.62%

No. 999 has a slightly chalky top color with a very strong orange-red tint. For this reason it is a popular type for colored cement products and roofing materials where a strong pigment is required at a low cost. Packed in 600 lb. barrels.

No. 1000 RED OXIDE*Typical Analysis:*

Ferric Oxide	85%
Silicates	8%
Calcium and Aluminum	6%
Loss on Ignition	Balance
Specific Gravity	4.46
Oil Absorption	16.-
1 lb. bulks gallons .....	.02692
Residue on 325 Mesh Screen .....	.35%

This grade is similar in analysis to No. 999 but is much richer, brighter, and clearer in color, although not quite as strong. It has been a standard with us for many years, and is ideal in quality and cost for structural iron, ship-bottom, and barrel paints. It also is recommended for surfacers, primers and undercoaters. Being levigated, it is free of grit. Packed in 485 lb. barrels or 50 lb. bags.

No. 1001 RED OXIDE

No. 1001 has the same general characteristics and analysis as No. 1000 except that the top color is not quite as red. The tinting strength is about equal to No. 1000 but the tint is clearer and more orange. Packed in 600 lb. barrels.

No. 1002 RED OXIDE

No. 1002 is identical in analysis with No. 1000, but its top is slightly bluer and its tint considerably bluer. Packed in 485 lb. barrels.

No. 1003 RED OXIDE

No. 1003 has characteristics very similar to No. 1002 but the top color is much deeper and richer in tone and the tint decidedly bluer. Its analysis is identical to that of No. 1000, and it is a useful pigment for wood and metal primers, auto surfacers, barn paints, cement, roofing and paper. Packed in 485 lb. barrels or 50 lb. paper bags.

No. 1005 RED OXIDE

This type is identical to No. 1000 in analysis and color, but about 10% stronger tinctorially, and a little redder in tint. Because of its fine, soft texture and clear, strong tint, it is particularly suitable for paper makers. Packed in 600 lb. barrels.

SUPER STANDARD RED OXIDE*Typical Analysis:*

Ferric Oxide	94%
Silicates	5%
Calcium	None
Loss on Ignition	Balance
Specific Gravity	4.46
Oil Absorption	13.—
1 lb. bulks gallons .....	.02692
Texture	325 Mesh
Residue on 325 Mesh Screen .....	.30%

Super-Standard is one of the very finest Red Oxides that has ever been produced in Spain. Its mass color is richer and brighter, and tinctorially it is much stronger than the old standard types. Compared to other Spanish Red Oxides, Super-Standard is the only bright red type whose Ferric Oxide content runs as high as 94% or that is entirely free of Calcium. For specification paints, concrete and cement products, Asphalt and Rubber Tiles and plastic compositions, these unusual qualities are important.

Super-Standard resists high temperatures well, and retains its rich color. Where materials are baked or fired at high heat this grade will give good color results. This grade also has been used for awnings where its high purity gives a more durable, weather resistive striping. Packed in 600 lb. barrels.

No. 7-11 RED OXIDE*Typical Analysis:*

Ferric Oxide	55/60%
Silica and Titanium Oxide	Balance
Residue on 325 Mesh Screen	1.0%

No. 7-11 is of outstanding good value. The staining power is excellent. It is light in gravity, perfectly fast to light and permanent and has proven its suitability for use in Bituminous and anti-fouling compositions, Bricks, Tiles, Oil Paints and Linoleum. It has a bright Terra-Cotta red shade.

According to the 10th Report of the Institution of Civil Engineers on the complete immersion tests carried out over a number of years, of the effect of sea-water on iron plates painted with Red Oxides, No. 7-11 has given the best results to date. Packed in 228 lb. sacks.

BR TURKEY RED OXIDE*Typical Analysis:*

Ferric Oxide	98%
Silica and Combined Water	Balance
Specific Gravity	5.16
Oil Absorption	16.8
1 lb. bulks gallons .....	.02327
Residue on 325 Mesh Screen .....	.32%

This is a pure, precipitated Red Oxide, brilliant and clear in color, with a fiery tone, and great strength. Its bright color, and very soft, smooth texture make it suitable for quick drying and lacquer enamels, where opacity with minimum pigmentation, and good suspension properties are an important advantage for producing lustrous, enamel finishes.

DK TURKEY RED OXIDE

DK is a companion type to BR, identical in every way, except that its color and tint are somewhat deeper and bluer. Packed in 400 lb. barrels.

B-20 MAROON OXIDE

Typical Analysis:

Ferric Oxide	88.50%
Silicates	7.64%
Calcium and Aluminum	2.86%
Specific Gravity	4.73
Oil Absorption	14.—
1 lb. bulks gallons .....	.02538
Residue on 325 Mesh Screen	1.0%

This pigment has very fine maroon mass color with a bluish undertone, and resembles, to some degree, the lighter shades of Indian Red. It is excellent for railway specification paints, and particularly for maroon floor finishes and metal primers, where it is most economical because of its comparatively low cost.

Packed in 500 lb. barrels.

RUBYAN RED OXIDE

Typical Analysis:

Ferric Oxide	73%
Silicates	21%
Calcium and Aluminum	5%
Loss on Ignition	Balance
Specific Gravity	4.14
Oil Absorption	11.5
1 lb. bulks gallons .....	.029
Residue on 325 Mesh Screen	1.-%

Rubyan Red Oxide is by far, one of the most beautiful in color of all the natural Red Oxides, and when ground in oil, develops a very deep, rich blood-red color. Because of this rich color, it is used to a large extent in bright insulating compounds.

Red Oxide paints made with Rubyan, possess a fine bluish red color of good covering power, resistant to all external influences. Such a coating is a perfect protection against rust, a property upon which is based the extensive use of this pigment for painting ironwork.

Among all the red pigments in the paint industry, the Oxides of Iron take the lead as the most useful. Rubyan Red Oxide is an outstanding pigment in this group.

INDIAN REDS

Few pigments, with the possible exception of precipitated Blanc Fixe and Lithopone are equal in fineness of grain, to Indian Red. We offer a range of pure Indian Reds, running from a fairly bright shade with a bluish red tint, to a very deep shade with a violet blue tint. These are known as our "Burgundy" Indian Reds. In addition to this series of pure grades, we also offer a good range of 80% to 90% Indian Reds, similar in shades and tints, but of course, not quite as strong. Where conditions do not make necessary the use of the more costly, pure grades, these types will prove suitable in many instances, and far more economical.

No. 1 BURGUNDY INDIAN RED

Typical Analysis:

Ferric Oxide	98/99%
Ash	Balance
Specific Gravity	5.—
1 lb. bulks gallons .....	.02354
Oil Absorption	13.—
Residue on 325 Mesh Screen .....	.21%

Burgundy No. 1 is a pure Indian Red, extremely soft in texture, 15/20% stronger than similar types, and when ground in oil or varnish, develops a very deep, rich maroon color. We recommend it especially for floor paints, Lacquers, Ceramic and Roofing Tiles. It has also been used to a large extent in tinting rubber products.

No. 3 BURGUNDY INDIAN RED

Has a deep rich cherry color, lighter in shade and redder in tint than No. 1.

No. 4 BURGUNDY INDIAN RED

Is deeper than No. 1 in shade, and much bluer in tint. The analysis of the Burgundy types are all similar to that of No. 1.

ROBINSON, WAGNER CO., INC.

No. 5 BURGUNDY INDIAN RED

Is considerably deeper in color and bluer in tint than No. 4. It has what may be best described as a plum shade.

No. 10 BURGUNDY INDIAN RED

This type has a rich, bright, cherry color with a clear tone and a bluish tint. It is strong in tinting power and extremely soft in texture. Because of its relatively low oil absorption, high gloss, Lacquer and Varnish Enamels may be formulated successfully with it.

No. 11 BURGUNDY INDIAN RED

Is a little brighter than No. 10 in mass color and redder and stronger in tint.

No. 2 INDIAN RED

Typical Analysis:

Ferric Oxide	80.50%
Silicates	7.64%
Calcium and Aluminum	2.86%
Specific Gravity	4.73
Oil Absorption	14.—
1 lb. bulks gallons .....	.02538
Residue on 325 Mesh Screen	1.0%

It is excellent for railway specification paints, and particularly for maroon floor finishes and metal primers, where it is most economical because of its comparatively low cost.

Nos. 40-41-42-43 INDIAN REDS

These range between 80/92% in Ferric Oxide, and in color from a rich russet to a deep purple with distinct blue tints. For floor paints, metal primers, etc., where a chemically pure pigment is a luxury, and low cost and durability are more important than beautiful color, these types will be found excellent for the purpose.

Our Indian Reds are all packed in barrels of approximately 475 lbs. each.

SELENIUM REDS

In the field of red pigments, SELENIUM REDS are the latest and most interesting development of all. The following four grades are very brilliant and fiery. They are not only permanent and non-fading but have excellent resistance to heat even at high temperatures, which of course makes them specially suitable for porcelain enamels as well as printing inks, for tin printing, baking enamels, and colors ground in oil, lacquer, or japan and rubber. They are also non-bleeding, and chemically they are pure Cadmium Selenides free of any adulterants whatsoever.

Specific Gravity	4.48
1 lb. bulks gallons .....	.0268
Oil Absorption	16.8
Residue on 325 Mesh Screen .....	.3%

SCARLET No. 1

Is the lightest in shade of the series, is somewhat on the orange tone, and resembles the pale shade of Vermillion.

SCARLET No. 2

Is several shades darker and redder than the No. 1 grade and similar to the medium Vermillions.

SCARLET No. 3

Is a very beautiful, bright, rich cardinal red.

SCARLET No. 4

Is much deeper and somewhat bluer than any of the other shades already listed, and looks very much like a deep Vermillion.

Packed in 10 lb. tins and 50 lb. kegs.

SIENNAS

The utilization of Italian mineral pigments dates far back into the centuries, but only since the second half of the last century has this developed on a large scale. Sienna, so called after a town in Italy, where the material was at one time found in abundance, is a yellow pigment with a more or less brownish-red tinge in mass color, and a distinct yellowish undertone.

The most important of these deposits are located in the Province of Grosseto, and in Cagliari, and these types are in great demand because of their brilliance of color, beautiful tint, great staining power, and unequalled transparency.

During the past few years, a marked preference for pure oil colors has developed among painters, and in the case of Raw Sienna, only those grades of exceptional strength and clarity of tint now find favor.

We import pure Italian Siennas, carefully selected and prepared at the mines. Rigid control assures strict uniformity of shade and softness of texture.

IXL RAW SIENNA

Typical Analysis:

Ferric Oxide	69%
Silica	13%
Alumina	7%
Loss on Ignition	11%
Specific Gravity	3.08
Oil Absorption	28.7
1 lb. bulks gallons .....	.03897
Residue on 325 Mesh Screen .....	.65%

This type is characterized by its very rich golden-orange mass tone, fine yellow undertone and clear tint. It has unusual strength.

Packed in 615 lb. casks.

YUKON RAW SIENNA

Typical Analysis:

Ferric Oxide	63%
Silica	} 28%
Alumina	
Loss on Ignition	12%
Oil Absorption	25.7
Specific Gravity	3.29
1 lb. bulks gallons .....	.03648
Residue on 325 Mesh Screen .....	.88%

Yukon has a deeper golden tone and is darker in color than IXL. It is about equal in tinting strength to IXL but is slightly more orange in tint, and is one of our most popular grades for grinders of colors in oil.

Packed in 450 lb. casks.

No. 14 RAW SIENNA

Typical Analysis:

Ferric Oxide	50/55%
Silica	} Balance
Alumina	
Loss on Ignition	
Specific Gravity	2.96
Oil Absorption	28.-
1 lb. bulks gallons .....	.4055
Residue on 325 Mesh Screen .....	.93%

This is our darkest Raw Sienna. It has a dark, greenish-brown mass color, with a very striking, clear, strong, lemon-yellow tint, and represents one of the finest Raw Siennas of the dark type produced in Italy.

Packed in 500 lb. casks.

KLONDYKE RAW SIENNA

Typical Analysis:

Ferric Oxide	60%
Alumina	3%
Silica	25%
Lime and Magnesia	2%
Combined Water	9%
Specific Gravity	3.20
1 lb. bulks gallons .....	.03751
Oil Absorption	25.-
Residue on 325 Mesh Screen	1.0%

Klondyke Raw Sienna is one of the most beautiful pigments of its type available. It has considerable tinting strength, almost equal to that of the synthetic yellow oxides, and equals them in brilliancy and richness of color. It is extremely soft in texture, grinds smoothly and easily, and tints with a very clear yellow tone, entirely free from reddish casts. This is an ideal standard for Raw Sienna in Oil, or where an unusually clean tone is required in tinting.

Packed in 400 lb. casks.

No. 1582 RAW SIENNA

Typical Analysis:

Ferric Oxide	55/58%
Silica and Alumina	Balance
Specific Gravity	3.88
1 lb. bulks gallons .....	.031
Oil Absorption	26.-
Residue on 325 Mesh Screen	1.0%

No. 1582 Raw Sienna is a light pigment, with a clean undertone, and makes an economical base for Raw Sienna in oil, when toned up with R/W No. 1 Hi-Test Yellow Oxide or a similar strong Iron Hydrate pigment.

Packed in 600 lb. casks.

ROBINSON, WAGNER CO., INC.

No. 9 BURNT SIENNA

Typical Analysis:

Ferric Oxide	60%
Silica	30%
Alumina	9%
Specific Gravity	3.72
Oil Absorption	25.—
1 lb. bulks gallons .....	.03227
Residue on 325 Mesh Screen	1.2%

No. 9 has a rather dark cherry top color with a relatively weak bluish tint.

Packed in 350 lb. barrels.

No. 10 BURNT SIENNA

Typical Analysis:

Ferric Oxide	65%
Silica	Balance
Alumina	Balance
Specific Gravity	3.58
Oil Absorption	30.—
1 lb. bulks gallons .....	.03353
Residue on 325 Mesh Screen .....	.97%

No. 10 has a very rich russet top color with a relatively strong salmon tint, and is an ideal standard for grinding in oil.

Packed in 500 lb. barrels.

No. 11 BURNT SIENNA

Typical Analysis:

Ferric Oxide	76%
Silica	Balance
Alumina	Balance
Specific Gravity	3.53
Oil Absorption	40.—
1 lb. bulks gallons .....	.03401
Residue on 325 Mesh Screen .....	.86%

No. 11 has an unusually fiery, bright mahogany mass color and is more orange in cast than No. 10. It is featured by its outstanding strength and brilliant salmon tint and is one of the so-called red fire Burnt Siennas, so highly valued for their brilliance of color and richness of tint.

SYNTHETIC YELLOW OXIDES

Typical Analysis:

Ferric Oxide	87/88%
Alumina	2/3%
Water Soluble Salts	None
Loss on Ignition	Balance
Specific Gravity	3.89
1 lb. bulks gallons .....	.0308
Oil Absorption	28.—
Residue on 325 Mesh Screen .....	.28%

R-W No. 1 YELLOW OXIDE

Compared to all other synthetic Yellow Oxides R-W No. 1 stands out definitely as a pigment of real merit, and because of its superior quality, paint and color grinders have manifested an interest in it that is widespread. It has many advantages over other types. For instance, it is ideal for a tinting base, because with it Ivory, Cream, and Buff may be obtained, and so far as we know this is the only single pigment that will produce all three tints satisfactorily. Another desirable feature, is its oil absorption which is approximately 30% lower. This, of course, makes it possible to obtain much higher and more permanent gloss. The suspension properties of R-W No. 1 are excellent, and it will not settle in the can. This pigment grinds easily into a smooth, buttery paste free from stringiness. Furthermore its freedom from Water Soluble Salts eliminates the possibility of fading or discoloration in flat wall finishes and plastic paints and assures quicker drying and greater durability in outside paints. Tintorially it is about 20% stronger than competitive types which makes it specially useful in Four Hour Enamels and other finishes where minimum pigmentation is required.

R-W No. 2 L YELLOW OXIDE

Is identical to R-W No. 1 in chemical and physical properties, but its mass color and tint are slightly greener in tone.

R-W-D YELLOW OXIDE

Is also similar chemically and physically, except that its top color is darker and browner, and its tint considerably redder in tone. These pigments owe their rich color and great staining power to their very high percentage of Ferric Hydrate—containing almost 98%.

Packed in 615 lb. casks.

XXX HI-TEST YELLOW OXIDE

Typical Analysis:

Ferric Oxide	89%
Loss on Ignition	Balance
Water Soluble Salts	None
Specific Gravity	3.65
Oil Absorption	33.—
1 lb. bulks gallon .....	.0329
Residue on 325 Mesh Screen	1.0

XXX Hi-Test Yellow Oxide has a somewhat marigold mass tone, with a rich, orange tint. This type is almost 50% stronger tinctorially than other types, and in fact is one of the most powerful synthetic Yellow Oxide available. Its color, ground straight in oil, resembles to a considerable degree, the color of some types of natural Raw Sienna, and for that reason XXX is used to a large extent for fortifying the strength of Raw Siennas.

Packed in 550 lb. barrels or 56 lb. bags.

XX HI-TEST YELLOW OXIDE

XX Hi-Test Yellow Oxide is similar in type to XXX, except that its top color is lighter in shade, and its tint not as red. XX is also approximately 20% weaker tinctorially than XXX, and somewhat lower in Oil Absorption and Ferric Oxide contents which averages approximately 81%.

Packed in 500 lb. barrels.

VELOUR FRENCH OCHRES

We represent, as sole sales agents for the United States and Canada, the famous Somgar Mines—the only Ochre mines in France owned and operated by Americans and equipped with modern American machinery. The mining, levigation, and drying of Ochre in France is an interesting operation. The mined earth is spread over an area of about 5,000 square yards, through which ditches are dug that lead to basins arranged over one another. In the fall, when the heavy rains set in, the water runs through these ditches and carries the earth slowly to the next basin. Here the coarse particles sink to the bottom, while the finer particles float to the next basin, and so on until all the earth has been thoroughly levigated. Throughout the winter, while there is no freezing, this natural floating apparatus does its work until the entire area is cleared of the Ochre earth and the basins full of it. A few weeks later the basins are drained of clear water, and the early spring sun evaporates the remaining moisture. When the yellow earth has dried into the large furrows, it is then taken and spread in thin layers on trays where it is again exposed to the heat of the sun until it is bone dry, after which it is made ready for shipment. Through the installation of modern American equipment the Somgar Mines have overcome difficulties usually encountered in such primitive methods, and are able to produce about 2,000 tons annually of a grade superior to that of all other mines.

ROBINSON, WAGNER CO., INC.

VELOUR FRENCH OCHRE No. 1

Typical Analysis:

Ferric Oxide	19/20%
Silica and Alumina	Balance
Specific Gravity	2.83
Oil Absorption	25.—
1 lb. bulks gallons .....	.04243
Residue on 325 Mesh Screen .....	.96%

French Ochre No. 1 is the lightest, clearest, and best quality produced in France. Reduced with a white base, it develops a very delicate, beautiful cream tint. For this reason No. 1 is recommended not only for tinting in the paint plant, but also as an ideal standard to be used for grinding Ochre in oil. For many years this high quality sold at a substantial premium in price, but is now available at the cost of ordinary grades. For grinding ochre in oil into paste form this is best mixed 70 pounds pigment and 30 pounds Raw Linseed Oil.

Packed in 550 lb. barrels.

VELOUR FRENCH OCHRE No. 2

Typical Analysis:

Ferric Oxide	22%
Silica and Alumina	Balance
Specific Gravity	2.85
1 lb. bulks gallons .....	.04212
Oil Absorption	27.—
Residue on 325 Mesh Screen	1.0%

This grade is the finest Gargas type of French Ochre available, more golden and not as light as No. 1, but it is somewhat stronger tinctorially. Its high Ferric Oxide content makes it particularly suitable for specification work.

Packed in 600 lb. casks.

VELOUR No. 1620 FRENCH OCHRE

This is a select Citron or JTCLES type, light and clear in color and tint, but not quite as bright as No. 2, with an unusual soft, velvet-like texture.

Packed in 600 lb. casks.

21 WEST STREET

NEW YORK

V-M FRENCH PROCESS ZINC OXIDES

Zinc Oxide is a basic pigment and reacts with organic acids to form zinc soaps. These soaps are glossy which is the reason that enamels made with Zinc Oxide produce such high, permanent hard gloss finishes. The presence of Zinc Oxide in outside paints is very necessary, as it prevents chalking. Combined with Linseed Oil, Zinc Oxide forms a hard, durable film. It also aids suspension, and is often added to paints for that very purpose.

In the early days the use of Zinc Oxide was practically confined to paints, as a non-poisonous pigment in place of White Lead. But since then, its use has developed considerably, so that today it is used not only in paints, enamels, and lacquers, but also to a large extent in rubber, ceramics, printing inks, textiles, etc.

The finest qualities of Zinc Oxide are those produced by what is known as the French Process, which briefly stated, consists of reducing and smelting the ores into pure metallic Zinc. This metallic Zinc is then vaporized and these Zinc vapors coming from the retorts, are met by a current of pre-heated air which immediately transforms them into Zinc Oxide. Since pure spelter (Zinc Metal) has been used, the resultant product is extremely fine and white, and what is most important—free from impurities.

The Zinc Oxides which we offer, are produced by the Vieille Montagne Company, known the world over for the superior quality of their Zinc Oxides. The French or indirect process is the only one employed by them and consequently their Zinc Oxides have the highest degree of whiteness, fineness, brightness, and opacity. As the Vieille Montagne Company has been producing these Zinc Oxides continuously for almost a century, uniformity is assured.

V-M WHITE SEAL ZINC OXIDE*Typical Analysis:*

Zinc Oxide	99.9%
Foreign Metals less than .....	.1%
Specific Gravity	5.50
Oil Absorption	11.2
1 lb. bulks gallons .....	.02182
Residue on 325 Mesh Screen .....	.02%

V-M White Seal is one of the most beautiful Zinc Oxides known. It has a dazzling, brilliant white color, extreme whiteness of color and fineness of texture is desired, V-M White Seal Zinc Oxide is strongly recommended. In Ceramic Glazes where freedom from such harmful impurities as Iron is a requisite, V-M White Seal will give excellent results.

V-M GREEN SEAL ZINC OXIDE*Typical Analysis:*

Zinc Oxide	99.9%
Foreign Metals .....	.1%
Specific Gravity	5.64
Oil Absorption	11.7
1 lb. bulks gallons .....	.02129
Residue on 325 Mesh Screen .....	.02%

V-M Green Seal Zinc Oxide differs but little from the White Seal quality, from the standpoint of lightness, fineness, or whiteness and is recommended for the same purpose. When formulated in long oil enamels this grade, as well as the Red Seal, have been found to produce better original lustre and increased gloss retention.

V-M RED SEAL ZINC OXIDE*Typical Analysis:*

Zinc Oxide	99.9%
Foreign Metals .....	.1%
Specific Gravity	5.64
Oil Absorption	12.—
1 lb. bulks gallons .....	.02129
Residue on 325 Mesh Screen .....	.02%

V-M Red Seal Zinc Oxide is one of the most popular qualities in demand. It possesses whiteness, brilliancy, purity, fineness and uniformity of grain, and is an ideal economical pigment where a Zinc Oxide is required of excellent color, fine texture and good wetting properties.

Packing:—V-M White Seal is available in 221 lb. paper lined barrels. The Green and Red Seals are supplied in 221 lb. or 442 lb. paper lined barrels.

V-M ZINC OXIDE PASTES

V-M Zinc Oxides are also available in paste form—that is, ground in guaranteed Linseed or Poppy Oil free from any adulterants. The White and Green Seals are ground in pure Poppy Oil only, whereas the Red Seal is ground in either pure Poppy or Linseed Oil, at the buyers option. For interior enamels and paints, Zinc Oxide ground in pure Poppy Oil is especially recommended because this oil will not turn yellow. For exterior finishes, where resistance to the elements is important, Zinc Oxide ground in pure Linseed Oil will give the most satisfactory results. These pastes contain about 15% of oil, and should be of special interest to enamel makers who are interested in reducing grinding operations to a minimum, as these pastes can be readily converted into enamels by simply adding the necessary amount of enamel vehicle on a pony mixer. We supply these pastes in black enamelled drums of 112 or 221 pounds, with removable heads, and the weight of the container is included in the net weight and invoiced as ground Zinc Oxide.

V-M ZINC DUST

Typical Analysis:

Metallic Zinc	95%
Zinc Oxide	Balance
Specific Gravity	7.06
Oil Absorption	7.5
1 lb. bulks gallons .....	.017
Residue on 325 Mesh Screen	2.0%

Zinc Dust which is an impalpable powder of fine metallic grey, is coming into increasing popularity as its advantages become more known and better understood by paint chemists. It serves an important purpose in the preparation of anti-rust paint for iron and steel, where it replaces Red Lead.

A satisfactory method is to mix by weight, two-thirds of Linseed Oil with one-third of Turpentine or other thinner, to which is added the required amount of Zinc Dust. Then about 10/15% of ground Zinc-in-Oil is generally added and the resultant paste thus obtained is reduced with additional oil and thinners to the desired consistency. Experience has shown that such a metallic Zinc paint produces a hard, durable, protective coating with outstanding adhesion.

Zinc Dust serves also in the deglycerination of oils and to a considerable extent in dyeing.

Packed in 221 lb. and 442 lb. barrels.

PURE "LITHOPAKE"

Typical Analysis:

Zinc Sulfide	98%
Zinc Oxide	Balance
Specific Gravity	4.0
1 lb. bulks gallons .....	.03
Oil Absorption	11.5
Residue on 325 Mesh Screen .....	.01%

The great hiding power of Lithopake makes it possible to reduce the amount of pigment necessary to a minimum to obtain satisfactory opacity, so that it is ideally suited for use in high-gloss Lacquers, Enamels, Printing Inks, etc.

It is one of the most opaque of the commonly used white pigments and possesses an extremely high refractive index. A very small amount produces very good opacity, and this low pigmentation improves the elasticity and especially the high gloss of the film. Lacquers may be pigmented with as little as one-half pound of Lithopake per gallon.

It is also a most satisfactory pigment for rubber dental goods.

Packed in 300 lb. barrels.

ANTIMONY WHITE

Typical Analysis:

Antimony Oxide	99/100%
Specific Gravity	5.75
1 lb. bulks gallons .....	.02088
Oil Absorption	11.7

Being made by a fume process similar to the manufacture of French-process Zinc Oxide, the texture of this pigment is very soft. Its color is snow white, and because of its small particle size, the opacity is quite good. We recommend the incorporation of some Zinc Oxide, in formulas where Antimony Oxide is used to insure proper drying. Our Antimony Oxide, because of its very small particle size, will develop high gloss, and prevents brittleness. When used in conjunction with other pigments in outside paints, it improves the film.

Our Antimony Oxide is especially recommended for Enamels, and the incorporation of 15/20% in a Zinc Enamel, improves the durability of the film, and increases the opacity and gloss.

In Baking Enamels, it serves a highly useful purpose because of its resistance to high temperatures, and good gloss retention. It blends with almost any vehicle without livering, and forms a paint whose consistency will not change in the package. Its chemical inactivity promotes flow and leveling which contribute to the smoothness and high gloss of the finish.

A 1 WATER FLOATED BARYTES

Typical Analysis:

Barium Sulphate	99.5%
Silica	Trace
Iron Oxide	Trace
Specific Gravity	4.38
Oil Absorption	8.
1 lb. bulks gallons .....	.0275
Texture	325 Mesh
Residue on 325 Mesh Screen .....	.23%

Our A 1 Barytes is snow white in color, and extremely soft in texture. It is an excellent extender for reducing colors in paints or paste colors, and it serves to aid easy working of a paint, because it weighs down the brush in application and permits the oil in the film to float to the top, preventing a too rapid set. Because of its very fine particle size, and greater oil absorption, it has less tendency to settle. It is packed in strong 100 lb. bags.

MEMORANDUM



